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PENSOFT

Rediscovery of *Sarcopyramis subramanii* Nayar (Melastomataceae) 94 years after the type collection from India

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Abstract

Sarcopyramis subramanii Nayar (Melastomataceae) has only been collected once in India, from the Lushai Hills in Mizoram state in 1926. We found this species 94 years after the collection of the type material. We present a detailed taxonomic description, photographs, and a map of the distribution of this species. A comparison of *S. subramanii* with the allied *S. nepalensis* Wall. is provided to facilitate its identification.

Keywords

Chirang reserve forest, northeast India, taxonomy

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Introduction

Melastomataceae Juss. is a pantropical family characterized by acrodromous leaf venation and small, numerous, exalbuminous seeds (Hickey 1973; Renner 1993). The family consists of 166 genera and 4500 species in which *Medinilla* Gaudich. and *Sonerila* Roxb. are considered the largest genera (Renner 1993). *Sarcopyramis* Wall. was established by Wallich (1824) and now consists of four species, including *S. bodinieri* Lév., *S. gracilis* Schwartz, *S. nepalensis* Wall., and *S. subramanii* Nayar. The genus is distributed over South East Asia: Tibet, southern China, Taiwan, Philippines, Borneo, Nepal, Jawa, and India (IPNI 2020). In India, the genus is represented by two species *S. nepalensis* and *S. subramanii* (Nayar 1967; Tiwari et al. 2016).

During a floristic exploration of the Ultapani forest under in Chirang Reserve Forest, part of the Manas Biosphere Reserve in Assam, India, a specimen of *Sarcopyramis* species was collected. The populations were found in a moist, shady, streamside habitat of Ultapani forest in Kokrajhar District, Assam. A critical examination of our specimen, study of the literature (Clarke 1879; Nayar 1967; Singh et al. 2002), and consultation of a herbarium specimen in the Royal Botanic Gardens, Kew (K) revealed that our specimen is *Sarcopyramis subramanii*. The species is distinguished from the most similar species, *S. nepalensis*, in Table 1.

Methods

The specimens have been preserved following standard herbarium techniques (Jain and Rao 1977). The species identification was confirmed by consulting herbarium sheets in the digital herbarium of the Royal Botanic Gardens (K) (herbarium acronyms from Thiers 2018). The

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Table 1. Comparison between *S. subramanii* and *S. nepalensis*.

Character	*S. subramanii*	*S. nepalensis*
Plant	Erect, 3–15 cm tall	Erect, 10–30 cm tall
Stem	Obscurely angulate 5- or 6-sided	Clearly 4-sided
Bracts	With stalk, stalk 3–5 mm long, obovate	Subsessile, ovate
Calyx lobe disc	2–3-ciliate at apex	Fimbriate at apex
Petals	Pale rose, not oblique, apex acuminate	Pink, oblique, apex apiculate or cuspidate

voucher specimens are deposited in the Botanical Survey of India (BSI), Shillong (ASSAM), and Bodoland University Herbarium (BUH), Kokrajhar, Assam. The photographs were made with a Leica EZ4 HD stereomicroscope with LED lighting. The distribution map of the species was prepared using ArcGIS 10.5 (Fig. 1).

Results

***Sarcopyramis subramanii* M.P.Nayar**

Figures 2, 3

Morphological characters. Slender herb, erect, 3–15 cm tall, branching; stem obscurely angled, 5 or 6 sided, 2–4 mm in diameter, glabrous, yellowish-green, node 0.5–4.0 cm apart from each other; leaves opposite, variable, ovate-sublanceolate, 1.0–8.5 × 0.5–3.5 cm, acute-acuminate at apex, obtusely oblique or semicordate at base; margin finely serrulate, ending with pink hair; upper surface pubescent, with whitish glandular hairs; under surface glabrescent or sparsely pubescent on nerves, purplish when matured; nerves 3, distinct at base; petiole narrowly winged, 0.3–2.0cm long, 1–2 mm in diameter, yellowish-green, glabrous; inflorescence terminal or axillary cyme, 1–4 flowered; bracts obovate, 3–7 × 2–5 mm, foliaceous, green, margin ciliate with glandular hairs, apex obtuse or round, stalk 2–5 mm long; flowers 3–7 mm in diameter; pedicel 2–3 mm long; hypanthium 4-sided with membranous crown narrowly winged on angle; calyx limb 4-lobed, 1 mm, green, persistent, disc margin with 2 or 3 needle-like glandular hairs; corolla 4, obovate, 4–7 × 3–3.5 mm, pale rose, apex acuminate, broad at middle, concave; stamens 8, equal, 4 mm, filament tinged pink, connective decurrent with a short yellow spur, 0.4 mm, yellowish-white when mature; anther 0.6 mm, anther cells close to each other at apex, yellow, brownish-red when mature; style 4 mm, capitate, papillose; capsule 4-sided, cup-shaped, green, glabrous.

Flowering and fruiting. August to September.

Distribution. Assam and Mizoram, India (Fig. 1).

Specimen examined. INDIA – Assam • A.D. Parry 54 (K 000867702); Lushai Hills, Tieck (now in Mizoram); alt. 1333 m; Aug. 1926; fl • S. Basumatary 0215 (BUH, ASSAM); Ultapani Forest; 26°45′59″N, 090°17′35″E; alt. 181 m; 9 Sept. 2020; fl, fr.

Note. *Sarcopyramis subramanii* was described by Nayar (1967) based on a collection by A.D. Parry. It closely resembles the widespread *S. nepalensis*, but *S. subramanii* can be easily differentiated having an obscurely angulate, 5- or 6-sided stem; obovate bracts with 3–5 mm long stalk; disc margin of calyx lobes with 2 or 3 needle-like cilia; petals non-oblique, pale rose with acuminate apex.

Conservation status. Based on population observed during field surveys and evaluation of available literature we suggest that the species *S. subramanii* is Data Deficient category (IUCN 2019).

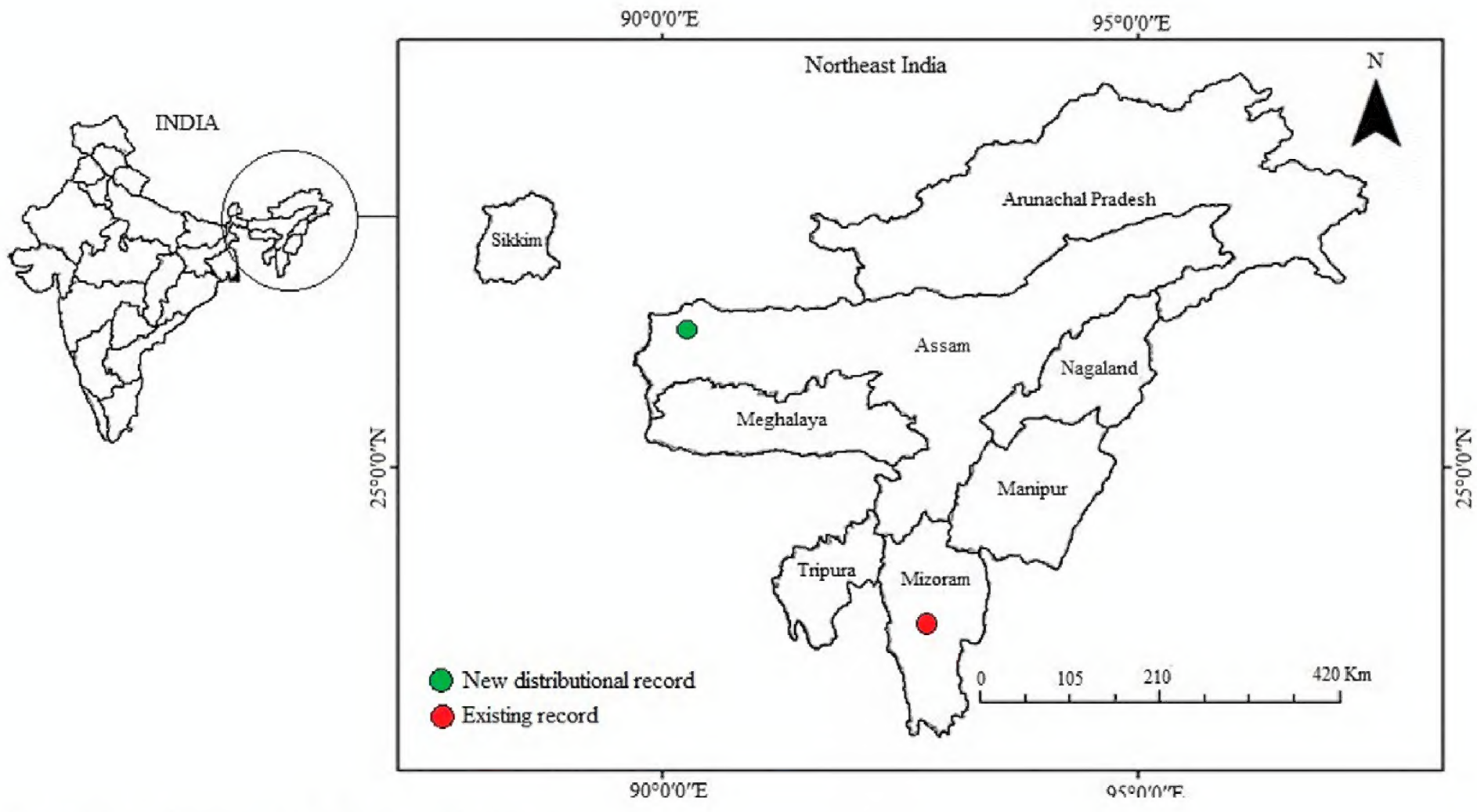

Figure 1. Distribution map of *Sarcopyramis subramanii*.

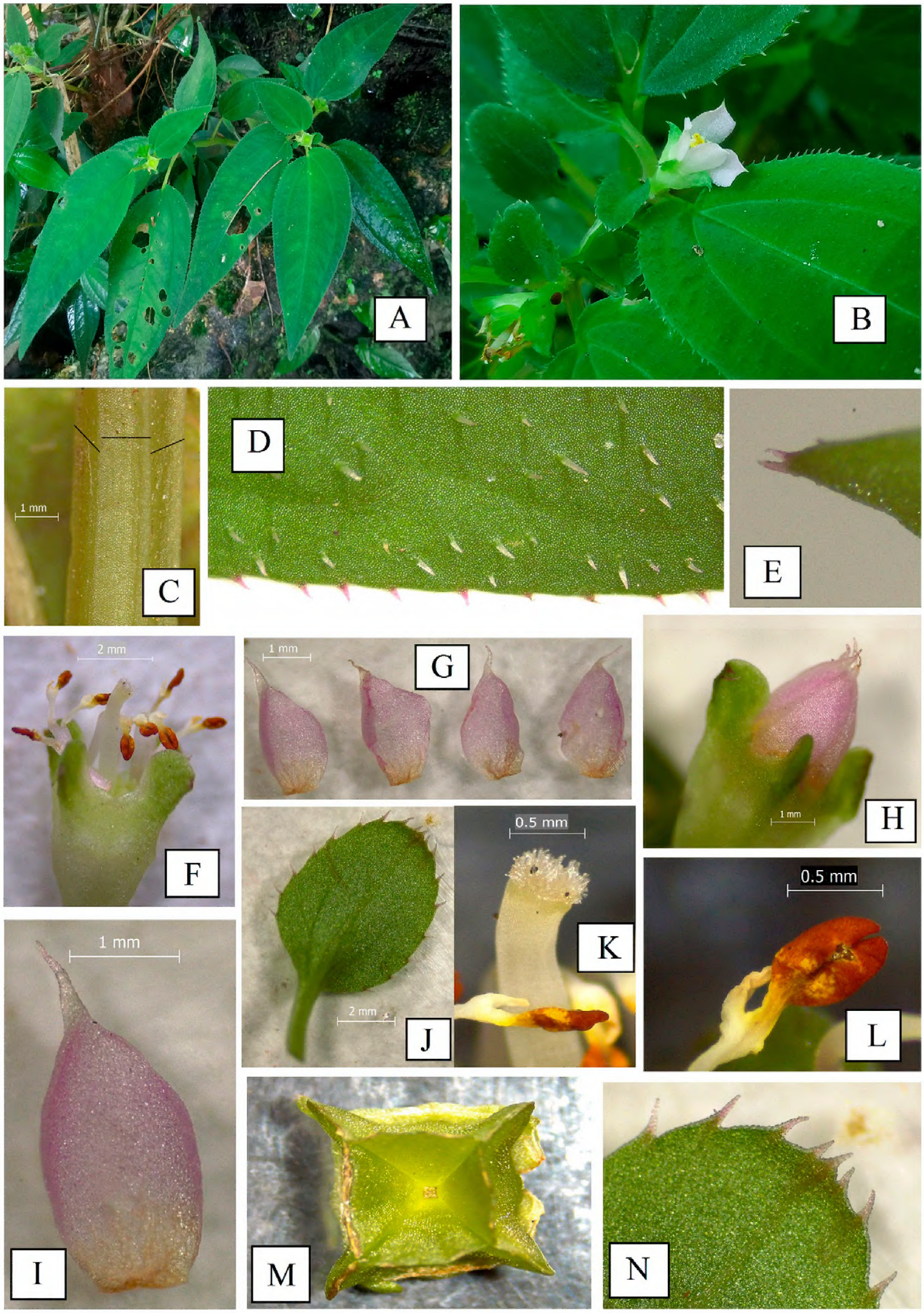

Figure 2. *Sarcopyramis subramanii*. **A.** Habit. **B.** Apical part withflower. **C.** Stem showing sides. **D.** Leaf surface and margin. **E.** Disc margin with 2 needle-like cilia. **F.** Flower dissected. **G, I.** Corolla.**H.** Flower bud. **J.** Stipule. **K.** Stigma. **L.** Anther with spur. **M.** Capsule. **N.** Bract apex.

Figure 3. *Sarcopyramis subramanii*. Habit and habitat.

Discussion

The type locality of *S. subramanii* is from Tieck, Lushai Hills district of Mizoram, India, and it was collected by A.D. Parry in the year 1926. However, the specimen was misidentified as *S. nepalensis*. Nayar (1967) established *S. subramanii* on the basis of Parry's collection (collection no. 54) and designated it as holotype. Singh et al. (2002), reported *S. nepalensis* in *Flora of Mizoram* and cited Parry's collection 54.

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Authors' Contributions

S. Basumatary – specimen collection, identification and writing the manuscript; S. Baruah – specimen identification and revision of the manuscript.

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